



This is an official
DHEC Health Advisory

Distributed via Health Alert Network
5 August 2010, 4:00 PM
10230-DHA-08-05-10-CRYPTO

**Increase in Cryptosporidiosis in Richland and Lexington Counties,
Associated with Recreational Water**

Background:

DHEC is currently investigating an outbreak of Cryptosporidiosis in the Midlands of SC. To date, there are 23 lab-confirmed or probable¹ cases reporting exposure to a recreational water facility in Richland County. This facility is currently closed pending further cleaning and hyperchlorination to eliminate *Cryptosporidia* oocysts.

Action Items:

- Richland and Lexington counties have documented an increase in reports of Cryptosporidiosis cases, many associated with recreational water use. A high-index of suspicion should be maintained for cryptosporidiosis in the SC Midlands during the remainder of the swimming season.
- Health care providers should request appropriate laboratory tests for Cryptosporidiosis in persons with clinically compatible symptoms, especially those who report recreational water exposure.

"Crypto" and Recreational Water:

Cryptosporidiosis is a diarrheal disease caused by microscopic parasites of the genus *Cryptosporidium*. Once an animal or person is infected, the parasite lives in the intestine and passes in the stool. Transmission is often via contaminated water, but may also occur person-to-person, for example in child care centers caring for diapered children.

The spore phase of the parasite's life cycle, or "oocyst," allows it to survive outside the body for long periods and makes it **very resistant to chlorine-based disinfectants**. Crypto may survive up to a week in swimming pools under standard chlorination procedures.

Outbreaks of Crypto are most commonly seen in the summer and early fall coinciding with the recreational water season¹. Transmission through recreational water is facilitated by (i) the large number of *Cryptosporidia* oocysts that can be shed in stools by a single person; (ii) the extended period of time these can be shed; (iii) the low infectious dose; and (iv) the relative tolerance of the oocysts to chlorine.

Symptoms:

Cryptosporidiosis is characterized by profuse watery diarrhea with cramping, abdominal pain, nausea, and malaise. The incubation period is 2-12 days; typically 4-7 days.

Diagnosis:

Detection of oocysts on microscopic examination of stool is diagnostic. However, **routine "stools for ova and parasites" (O & P) may often fail to detect *Cryptosporidium* species**. Providers should additionally request one of the more recently developed more specific and sensitive tests (e.g., tests based on antigen detection.) Children who share a common exposure with other confirmed cases and

¹ Correction to Advisory disseminated via the Health Alert Network on August 5, 2010. "or probable" added; "with most cases" deleted.

who manifest similar symptoms may be presumed to have cryptosporidiosis. Because shedding can be intermittent, at least 3 stool specimens collected on separate days should be examined before considering test results negative.

Treatment:

Cryptosporidiosis is uncomfortable but self-limited in healthy persons, who may not need specific therapy. Infection may become chronic and debilitating in the immunosuppressed. Nitazoxanide (Alinia, Romark) has been licensed for treatment of cryptosporidiosis in persons >1 year of age².

Prevention/Education:

- In general, persons should not use recreational water facilities if they have had diarrhea within the previous 14 days.
- Children should be taught to avoid drinking water in public pools and splash pads.
- Frequent bathroom breaks and good hygiene, especially for toddlers in diapers, can also help avoid contamination of water.
- Posters with good advice for healthy swimming are available from the CDC³, and more general information about the risks of diarrhea and swimming is readily available⁴.

References and Resources:

1. Cryptosporidiosis and Giardiasis Surveillance: United States 2006-2008. MMWR June 11, 2010 / Vol. 59 / No. SS—6. www.cdc.gov/mmwr/pdf/ss/ss5906.pdf
2. CDC: Nitazoxanide fact sheet: www.cdc.gov/crypto/health_professionals/tx.html
3. CDC: Six Steps for Healthy Swimming: www.cdc.gov/healthywater/swimming/pools/six-steps-healthy-swimming.html
4. CDC: Diarrhea and swimming: www.cdc.gov/healthywater/swimming/pools/diarrhea-and-swimming.html
5. CDC: Cryptosporidiosis (also known as "Crypto"): www.cdc.gov/crypto

DHEC contact information for reportable diseases and reporting requirements:

Cryptosporidiosis is routinely reportable (within 7 days) to SC DHEC.

Reporting of Cryptosporidiosis is consistent with South Carolina Law requiring the reporting of diseases and conditions to your state or local public health department. (State Law # 44-29-10 and Regulation # 61-20) as per the DHEC 2010 List of Reportable Conditions available at:

<http://www.scdhec.gov/administration/library/CR-009025.pdf>

Federal HIPAA legislation allows disclosure of protected health information, without consent of the individual, to public health authorities to collect and receive such information for the purpose of preventing or controlling disease. (HIPAA 45 CFR §164.512).

Regional Public Health Offices – 2010

Mail or call reports to the Epidemiology Office in each Public Health Region.

Region 1

Anderson, Oconee

220 McGee Road
Anderson, SC 29625
Phone: (864) 260-4358
Fax: (864) 260-5623
Nights / Weekends: 1-866-298-4442

Abbeville, Edgefield, Greenwood, Laurens, McCormick, Saluda

1736 S. Main Street
Greenwood, SC 29646
Phone: 1-888-218-5475
Fax: (864) 942-3690
Nights / Weekends: 1-800-420-1915

Region 2

Greenville, Pickens

PO Box 2507
200 University Ridge
Greenville, SC 29602-2507
Phone: (864) 282-4139
Fax: (864) 282-4373
Nights / Weekends: 1-800-993-1186

Cherokee, Spartanburg, Union

PO Box 4217
151 E. Wood Street
Spartanburg, SC 29305-4217
Phone: (864) 596-2227, x- 210
Fax: (864) 596-3443
Nights / Weekends: 1-800-993-1186

Region 3

Chester, Lancaster, York

PO Box 817
1833 Pageland Highway
Lancaster, SC 29720
Phone: (803) 286-9948
Fax: (803) 286-5418
Nights / Weekends: 1-866-867-3886

Region 3 (continued)

Fairfield, Lexington, Newberry, Richland

2000 Hampton Street
Columbia, SC 29204
Phone: (803) 576-2749
Fax: (803) 576-2993
Nights / Weekends: 1-888-554-9915

Region 4

Clarendon, Kershaw, Lee, Sumter

PO Box 1628
105 North Magnolia Street
Sumter, SC 29150
Phone: (803) 773-5511
Fax: (803) 775-9941
Nights/Weekends: 1-877-831-4647

Chesterfield, Darlington, Dillon, Florence, Marlboro, Marion

145 E. Cheves Street
Florence, SC 29506
Phone: (843) 661-4830
Fax: (843) 661-4859
Nights / Weekends: (843) 660-8145

Region 5

Bamberg, Calhoun, Orangeburg

PO Box 1126
1550 Carolina Avenue
Orangeburg, SC 29116
Phone: (803) 533-7199
Fax: (803) 533-7134
Nights / Weekends: 1-800-614-1519

Aiken, Allendale, Barnwell

1680 Richland Avenue, W. Suite 40
Aiken, SC 29801
Phone: (803) 642-1618
Fax: (803) 643-8386
Nights / Weekends: 1-800-614-1519

Region 6

Georgetown, Horry, Williamsburg

1931 Industrial Park Road
Conway, SC 29526-5482
Phone: (843) 915-8804
Fax: (843) 365-0085
Nights / Weekends: (843) 381-6710

Region 7

Berkeley, Charleston, Dorchester

4050 Bridge View Drive, Suite 600
N. Charleston, SC 29405
Phone: (843) 953-0060
Fax: (843) 953-0051
Nights / Weekends: (843) 219-8470

Region 8

Beaufort, Colleton, Hampton, Jasper

219 S. Lemacks Street
Walterboro, SC 29488
Phone: (843) 525-5910
Fax: (843) 549-6845
Nights / Weekends: 1-843-441-1091

DHEC Bureau of Disease Control Division of Acute Disease Epidemiology

1751 Calhoun Street
Box 101106
Columbia, SC 29211
Phone: (803) 898-0861
Fax: (803) 898-0897
Nights / Weekends: 1-888-847-0902



www.scdhec.gov

Categories of Health Alert messages:

Health Alert	Conveys the highest level of importance; warrants immediate action or attention.
Health Advisory	Provides important information for a specific incident or situation; may not require immediate action.
Health Update	Provides updated information regarding an incident or situation; unlikely to require immediate action.